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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,201	03/27/2002	Udo Gartner	540608-2002	2371

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EXAMINER

MCCLLOUD, RENATA D

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,201

Applicant(s)

GARTNER ET AL.

Examiner

Renata McCloud

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In response to the amendment filed 29 August 2003, paper number 7, the following has occurred: Claims 8-12 have been amended.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) The recitation "whereby the volumes of all chambers of the silencer housing in connection with the defined openings specifications of all openings of the openings of the pipe" is unclear.

(b) The recitation "the gas-conducting pipe can be led through the silencer housing chambers" is indefinite. The limitation "can be" makes the claim unclear as to if the pipe is led through the silencer or not.

(c) The recitation "the modular part of a modular series of modular parts is configured with different openings characteristics" is unclear.

(d) Claim 12 provides for the use of the silencer of claim 8, but, since the claim does not set forth any steps involved in the method/process, it is unclear

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what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 12 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kullander et al (U.S. Patent 5,332,873) in view of Inoue et al (U.S. Patent 4,880,078), Rauch (U.S. Patent 3,993,160).

Claim 8: Kullander et al teach and exhaust silencer, comprised of a gas-conducting pipe (Fig. 2:4) having openings of a defined cross-section (Fig. 2:

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openings below 4) and defined wall height, arranged in a silencer housing (Fig. 1:1,2,3) in such a manner that it runs through an axial series of silencer housing chambers insulated from each other (Fig. 2: Chambers above and below 15), into which the openings (e.g. Fig. 2: openings below 4) of the gas-conducting pipe (Fig. 2:4) communicatively open, whereby the volumes of all chambers (Fig. 2: Chambers above and below 15) of the silencer housing (Fig. 1:1,2,3) in connection with the defined openings specifications of all openings (e.g. Fig. 2: openings below 4), and the gas-conducting pipe (Fig. 2:4) can be led through the silencer housing chambers (Fig. 2: Chambers above and below 15) in such a manner that the latter run through each of the silencer housing chambers at least twice (Fig. 2), the gas-conducting pipe is constructed as two pipe connected together (e.g. Fig. 2: 7 and 8) and as a part for a two-part silencer housing (Fig. 1:1,2), and the part of a modular series of parts is configured with different opening characteristics, tuned to the same respective silencer housing chamber volumes (Fig. 2: 7,8, and openings below 4).

Kullander et al do not teach the chambers being gas-tight, the pipe being modular, and openings of the pipe communicatively aligned with the respective silencer housing chamber are tunable to an interference frequency band from the noise spectrum of the exhaust gases to be dampened respectively.

Inoue et al teach an exhaust silencer, comprised of a gas-conducting pipe (Fig. 1:14) having openings (e.g. Fig. 1: 14a) arranged in a silencer housing (Fig. 1:11) in such a manner that it runs through an axial series of silencer housing chambers (Fig. 1:13) insulated gas tight from each other, into which the openings

(e.g. Fig. 1:14a) of the gas-conducting pipe (Fig. 1:14) are communicatively open, whereby the volumes of all chambers (Fig. 1:13) of the silencer housing (Fig. 1:11) are in connection with the openings (e.g. Fig. 1: 14a), and the pipe is constructed as a modular part (e.g. Col. 2:9-10) and the modular part of a modular series of modular parts is configured with different characteristics (e.g. Col. 5:38-40), tuned to the same respective chamber volume (e.g. Col. 2:31-45)

Rauch teaches the openings (Fig. 2:8) of a pipe are tunable to an interference frequency band from the noise spectrum of the exhaust gases to be dampened respectively (Col. 1:16-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the muffler taught by Kullander et al to include the teachings of Inoue et al and Rauch. The advantage of this would be a muffler that muffles a wide range of frequencies.

Claim 9: Kullander et al, Inoue et al, and Rauch teach the limitations of claim 8. Referring to claim 9, Kullander et al teach a U-shaped configuration (e.g. Fig. 2:7) of the pipe assembly in the silencer housing.

Claim 10: Kullander et al, Inoue et al, and Rauch teach the limitations of claim 8. Referring to claim 10, Kullander et al teach an S-form configuration (Fig. 2:7 and 8) of the pipe assembly in the silencer housing.

Claim 12: Kullander et al, Inoue et al, and Rauch teach the limitations of claim 8. Referring to claim 12, Kullander et al teach a muffler used in exhaust installations for motor vehicles (Col. 1:1).

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6. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kullander et al, Inoue et al, and Rauch as applied to claim 8 above, in view of Wolf et al (U.S. Patent 5,979,598).

Claim 11: Kullander et al, Inoue et al, and Rauch teach the limitations of claim 8. Referring to claim 11, they do not teach a gas-conducting pipe of die cast aluminum or plastic. Wolf et al teach a gas-conducting pipe of die cast aluminum or plastic (Col. 2: 65-3:1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the muffler taught by Kullander et al, Inoue et al, and Rauch to make the gas-conducting pipe out of aluminum as taught by Wolf et al. The advantage of this would be a gas-conducting pipe that has substantial wall thickness without being unduly heavy.

Response to Arguments

7. Applicant's arguments with respect to claims 8-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hayakawa et al (U.S. 5,907,135) teach gas-tight chambers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renata McCloud whose telephone number is

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(703) 308-1763. The examiner can normally be reached on Mon.- Fri. from 8 am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on (703) 308-3370. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Renata McCloud
Examiner
Art Unit 2837

RDM


ROBERT NAPPI
SUPERVISORY PATENT EXAMINER